The D-Link DVG-6004S VoIP trunk gateway connects an IP network to POTS (plain old telephone service) analog lines to send IP voice and data to the conventional phone sets and fax machines. Designed as a cost-effective VoIP solution for a small to medium-sized business and the branch office, these devices provide 4 FXO (Foreign eXchange Office) ports for 4 phone line connections. IP network connection can be through any of the 4 LAN ports or the WAN port (all 10/100BASE-TX Ethernet interfaces).

Features and Benefits:

For Office Use:

In a remote IP phone to local analog phone line application, a branch office can take in IP voice calls from a head office, then route them to local destinations equipped with only analog phones. The long distance calls are sent through the Internet without any phone charge, and the remote office pays only for the local analog phone time. The gateway connects analog callers to the IP network without involving operators or incurring toll charges from telephone companies.

The DVG-6004S VoIP gateway can be deployed to interface VoIP infrastructure with a Public Switched Telephone Network (PSTN). It allows analog phone callers to place calls through the long-distance Internet trunk line. The gateway accepts dial tone and ring current from the connected equipment, and facilitates the use of conventional phone sets and fax machines on a VoIP network.

Guaranteed Voice Quality:

The DVG-6004S gateway delivers clear sound, voice and reliable fax calling through implementation of internationally recognized standards for voice and data networking. It incorporates Quality of Service (QoS) functions to ensure that voice received through the Internet is the same as or even surpasses that received on the ordinary phone.

Convenient Call Features:

The DVG-6004S gateway supports extensive call features, allowing the service providers to offer these functions to their subscribers. Provided that the telephone sets at the end-users side support these functions, callers can take advantage of these convenient features. Configuration of individual phone connection is easy, using the multi-language Interactive Voice Response (IVR) or the web-based user's interface.

Shared Broadband Internet Connection/Integrated 4-Port Switch:

The gateway provides a convenient router function to permit office users to share the Internet broadband line. With 4 integrated Ethernet ports, office computers can readily connect to these gateways and use their built-in NAT/DHCP server functions for automatic logon to the Internet.
TECHNICAL SPECIFICATIONS

**VOiP**
- Analog Interfaces
  - 4 RJ-11 FXO ports
  - Loop start signaling protocol
  - Reversed polarity detection
- Voice Features
  - SIP (RFC3261) compatible
  - SIP method: ACK, BYE, CANCEL, INFO, INVITE, NOTIFY, OPTIONS, PING, PRACK, PUBLISH, REFER, REGISTER, SUBSCRIBE, UPDATE
  - SIP Extension: Session Timer (UPDATE or re-INVITE), Proxy Required, P-Asserted (RFC3325), MWI (RFC3842)
  - Voice CODEC: G.711 a/u law, G.726, G.729A, G.723.1
  - CNG (Comfort Noise Generation)
  - VAD (Voice Activity Detection)
  - Silence suppression/detection
  - G.165/G.168 echo cancellation
  - Adaptive Jitter Buffer and programmable Gain Control
  - In-Band DTMF, Out-Of-Band DTMF relay (RFC2833, SIP INFO)
  - Multiple SIP Proxy server entries with fail-over mechanism
  - T.30 (G3II)/Real time T.38/Secured T.38 FAX relay
  - DTMF, FSK (Bellcore & ETSI)
  - Caller ID detection and generation
  - Caller ID Restriction (CLIR) support
  - FXO hang-up detection: Busy Tone cadence auto learning/detection
  - Group hunting function
  - Digit Map
  - E.164 Numbering & ENUM support
  - Recordable greeting message
  - Hot-Line, Warm-Line support
- Call Features
  - Call Hold, Call Waiting, Call Pickup
  - Call Forward: Unconditional, Busy, No Answer
  - Call Transfer: Unattended, Attended
  - Speed Dialing, Repeat Dialing, Three Way Calling (Media Server required)

**IP Network**
- WAN Port
  - RJ-45 10/100BASE-TX Ethernet port supporting N-way auto-negotiation, auto-detection/adjustment of MDI/MDIX
  - Static IP, PPPoE, PPTP, Bigpond Cable and DHCP address assignment support
  - QoS: IP TOS (IP Precedence), DiffServ, Port Priority
  - NAT traversal: STUN, UPnP, OUTBOUND PROXY
  - Pass-through NAT
  - NAP: (Network Time Protocol RFC 1305), accepts up to 3 Time Servers Time Zones
  - RTP Packet Summary: packet sent, packet received, packet loss
  - MAC address clone
- LAN Ports
  - 4 RJ-45 10/100BASE-TX Ethernet ports supporting NWay auto-negotiation, auto-detection/adjustment of MDI/MDIX
  - NAT/PAT, DHCP Server, DMZ, Virtual Server, MAC/IP/port-based filtering
  - QoS: port based priority (Hi/Low) with rate limit
  - Router or Bridge Mode
- DoS Prevention
  - Attack prevention based on TCP, UDP, IP, ICMP protocols
  - Prevents SYN Flood, IP Spoofing, Ping of Death, Tear Drop DoS attacks

**Operation & Maintenance**
- Management/Configuration
  - Web-based & Telnet user interfaces with password authentication
  - Configuration, port status, registration status, hardware/software information in web-based & Telnet UI
  - IVR (Interactive Voice Response) configuration engine
  - Reset button (factory default setting restoration)
  - Optional Auto Provisioning Server (APS) for mass deployment with
    - Voice CODEC: G.711 a/u law, QoS: IP TOS (IP Precedence), DiffServ, Port Priority
  - SIP Extension: Session Timer
  - Reset button (factory default (UPDATE or re-INVITE), Proxy Static IP, PPPoE, PPTP, Bigpond setting restoration)
  - MWI (RFC3842) assignment support
  - Optional Auto Provisioning Server (APS) for mass deployment with
    - Voice CODEC: G.711 a/u law, QoS: IP TOS (IP Precedence), DiffServ, Port Priority
  - SIP Extension: Session Timer
  - Multiple SIP Proxy server entries with fail-over mechanism
  - T.30 (G3II)/Real time T.38/Secured T.38 FAX relay
  - DTMF, FSK (Bellcore & ETSI)
  - Caller ID detection and generation
  - Caller ID Restriction (CLIR) support
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**Physical & Environmental**
- Power Input
  - DC 12V
  - Through 100 to 240 VAC, 50/60Hz, 12VDC output External power adapter
- Dimensions: 202 x 172 x 35 mm
- Weight: 430 grams
- Operating Temperature: 0° to 45°C
- Storage Temperature: -25° to 75°C
- Humidity: Up to 95% RH non-condensing
- EMI
  - FCC Class B
  - CE
  - Safety
  - UL

**Ordering Information:**
DVG-6004S
1WAN, 4LAN, 4FXO, VoIP Gateway, SIP

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